Headquarters U.S. Air Force

Integrity - Service - Excellence

Stress Formula Unraveled

AF/DPM

AFSAA

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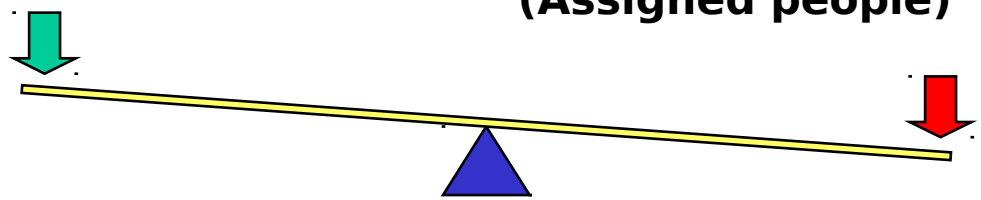
Stress Formula

- **Definition: A career field is stressed when it does not have enough people to do its assigned jobs**
- **Stress Level =**

$$1 + \frac{\text{((Home-station shortfall) + (Deployment shortfall))}}{\text{(Assigned people)}}$$



Supply **Demand**

- **Supply: Assigned, available and postured personnel by AFSC**
- **Demand: Home-station (HS) and deployed workload**

Objective Way to Measure Stress

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Stress Formula

- **Definition: A career field is stressed when it does not have enough people to do its assigned jobs**
- **Stress Level =**

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Home Station Shortfall

= Requirements (Funded + Unfunded)

– Jobs that Draw down during deployments

– Assigned

– Deployed

Basically

Demand – Supply

Deployment Shortfall

= (Daily Deployed Personnel

– Postured Personnel)

*** AEF Multiplier**

AEF Multiplier is 2.5 or 5 and is related to how people are postured. Generally, it states how many rotations need to be covered for each deployment shortfall.

Basically

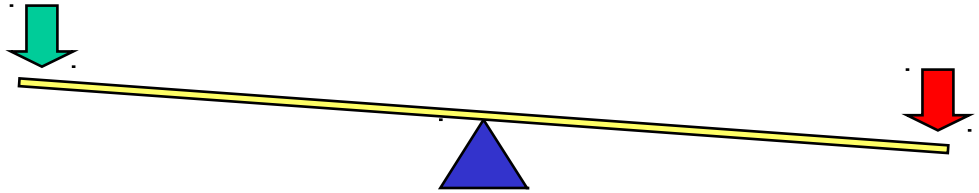
(Demand - Supply) * AEF Multiplier

Objective Way to Measure Stress

What the Stress Formula Means

- **Definition: A career field is stressed when it does not have enough people to do its assigned jobs**
  - **Stress Level =**

$$1 + \frac{\text{((Home-station shortfall) + (Deployment shortfall))}}{\text{(Assigned people)}}$$



- **A stress level of 1.0 means that there is no shortfall**
- **A stress level greater than 1.0 means that there is a shortfall. The shortfall is expressed as a percentage of assigned personnel (1.2 means that each person at home station is doing the work of 1.2 people)**
- **A stress level less than 1.0 means that there is a surplus. The surplus is expressed as a percentage of assigned personnel (.8 means that each person at home station, on average, is doing the work of .8 people)**

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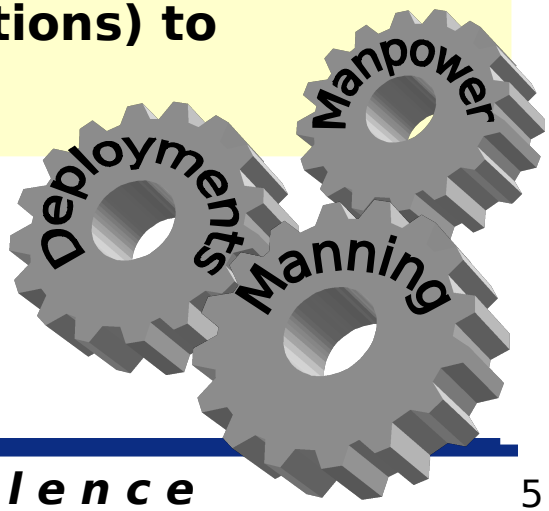
Stress Formula "Drivers"

- **Personnel Deployment and Posturing**
  - **Comparing the number of AD deployed (by AFS) (DEMAND) to the number of AD made available to deploy (AEF **S coded) (SUPPLY).**

- **Manning**
  - **Comparing funded manpower requirements (DEMAND) to Duty AFS inventory less deployments (SUPPLY)**
    - **Goal: 95-100%**

- **Manpower**
  - **Comparing funded manpower (authorizations) to manpower requirements**



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Supply vs Demand: Home-Station Shortfall

- Home-Station Shortfall = Home-Station Demand – Home-Station Supply
  - Home-station Demand = (Authorized + Unfunded Requirements) – (jobs not required at HS when personnel deploy)
  - Home-station Supply = Assigned – Deployed

1C1 (ATC) Example:

- Home-Station Supply:
  - 2273 Assigned *
  - 139 AD Deployed
- Home-Station Demand:
  - 2695 Authorized *
  - 59 Unfunded requirements
  - 0 jobs draw down

* Excludes 3-level authorizations and assigned due to lack of FAA rating

1C1 Example:

Home-station shortfall =

((2695 + 59) – (0*139))

Minus

(2273 - 139)

= 620

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Supply vs Demand: Deployed Shortfall

- **Deployed Shortfall = Daily Deployed Shortfall * AEF Multiplier**
  - **Daily Deployed Shortfall = IF (Daily Deployed Demand – Daily Deployed Supply) > 0, THEN (Daily Deployed Demand – Daily Deployed Supply) * AEF Multiplier, ELSE = 0 Shortfall**
    - **Daily Deployed Demand = # AD deployed**
    - **Daily Deployed Supply = AD Postured (**S coded in AEF Library)**
    - **AEF multiplier = 2.5 or 5 (Minimal # personnel required per body short)**

1C1 (ATC) Example:

- **Daily Deployed Supply:**
  - **Postured AD Slots: 235**
- **Daily Deployed Demand:**
  - **139 AD deployed**
- **AEF Multiplier:**
  - **2.5**

1C1 Example:

Daily Deployed shortfall =

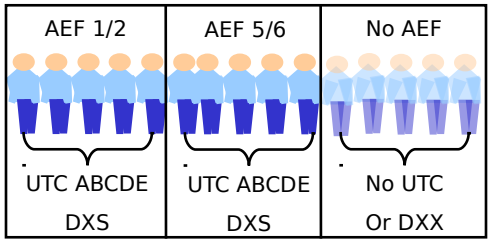
139 - 235

= - 96 … not > 0

Deployed shortfall = 0

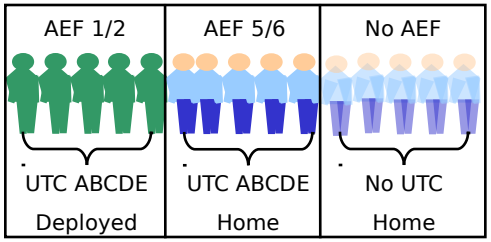
Deployed Shortfall: AEF Multiplier

- **What is the AEF Multiplier telling me?**
  - **Each deployed shortfall is a requirement that cannot be met over the entire AEF Cycle: How many AEF rotations do I have to cover?**
    - **Case 1: AEF Multiplier 2.5**

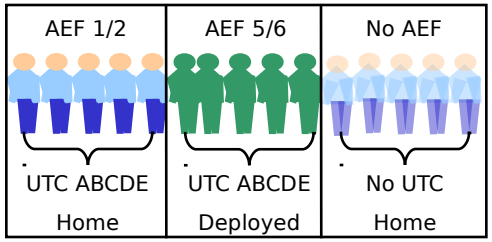


Unit Manning

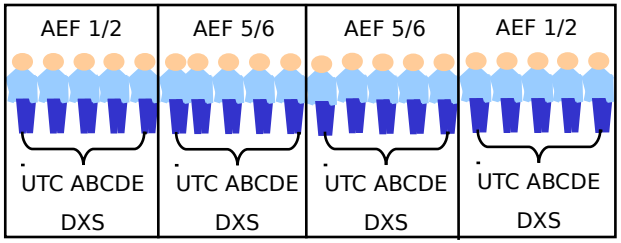
Add



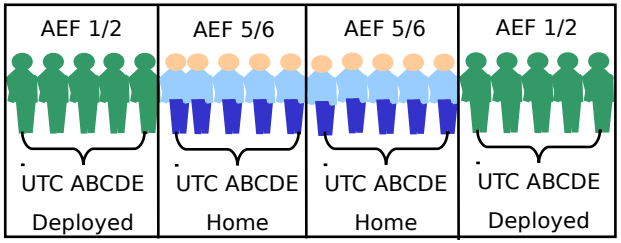
AEF 1/2



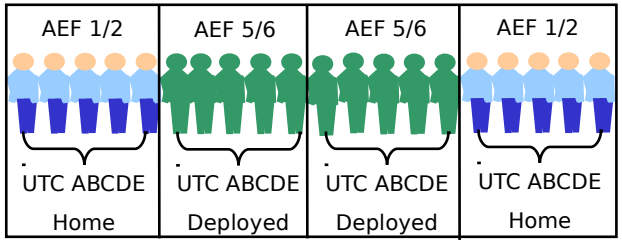
AEF 5/6



Unit Manning



AEF 1/2

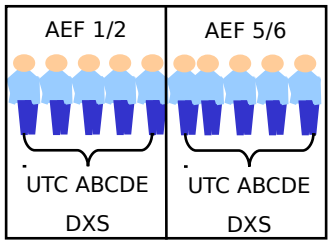


AEF 5/6

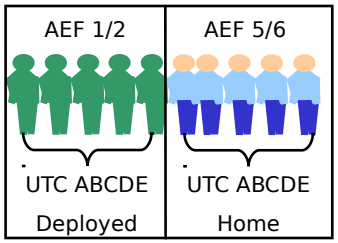
Each shortfall needs (5 rotations ÷ 2 rotations covered per extra position) = 2.5 extra positions to cover 5 AEF rotations

Deployed Shortfall: AEF Multiplier

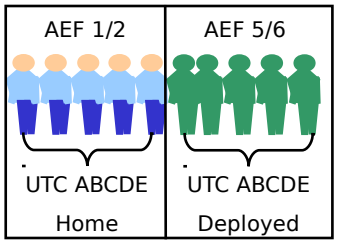
- **What is the AEF Multiplier telling me?**
  - **Each deployed shortfall is a requirement that cannot be met over the entire AEF Cycle: How many AEF rotations do I have to cover?**
    - **Case 2: AEF Multiplier 5**



Unit Manning



AEF 1/2



AEF 5/6

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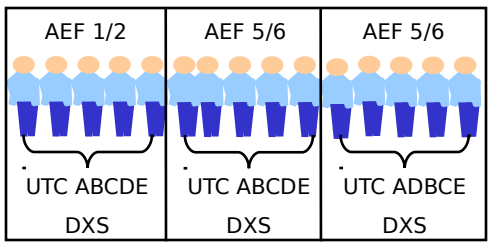

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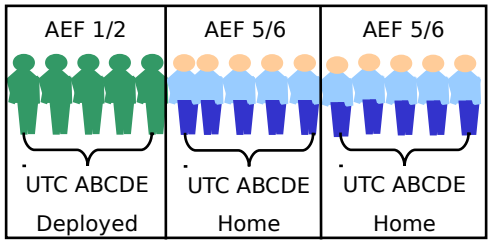
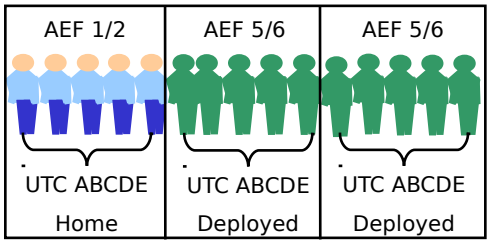


AEF 1/2



AEF 5/6

Each shortfall needs (5 rotations ÷ 1 rotation covered per extra position) = 5 extra positions to cover 5 AEF rotations

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Stress Result

- **Stress Level =**

$$1 + \frac{(620 + 0)}{(2273)} = 1.27$$

- **Recent leveling methodology was set to 1.20**
  - **If > 1.20, then focus efforts to drive down the stress**

Example #2

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Supply vs Demand: Home-Station Shortfall

- Home-Station Shortfall = Home-Station Demand – Home-Station Supply
  - Home-station Demand = (Authorized + Unfunded Requirements) – (jobs not required at HS when personnel deploy)
  - Home-station Supply = Assigned – Deployed

2A5 (A/C Mx) Example:

- Home-Station Supply:
  - 18925 Assigned
  - 1178 AD Deployed
- Home-Station Demand:
  - 17690 Authorized
  - 231 Unfunded requirements
  - 0.5 jobs draw down

2A5 Example:

Home-station shortfall =

((17690+231) – (0.5*1178))

Minus

(18925 - 1178)

= (17921 - 589) – 17747

= - 415

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Supply vs Demand: Deployed Shortfall

- **Deployed Shortfall = Daily Deployed Shortfall * AEF Multiplier**
  - **Daily Deployed Shortfall = IF (Daily Deployed Demand – Daily Deployed Supply) > 0, THEN (Daily Deployed Demand – Daily Deployed Supply) * AEF Multiplier, ELSE = 0 Shortfall**
    - **Daily Deployed Demand = # AD deployed**
    - **Daily Deployed Supply = AD Postured (**S coded in AEF Library)**
    - **AEF multiplier = 2.5 or 5 (Minimal # personnel required per body short)**

2A5 (A/C Mx) Example:

- **Daily Deployed Supply:**
  - **Postured AD Slots: 922**
- **Daily Deployed Demand:**
  - **1178 AD deployed**
- **AEF Multiplier:**
  - **5**

2A5 Example:

Daily Deployed shortfall =

1178 - 922

= 256 … > 0

THEN 256 * 5

Deployed shortfall = 1280

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Stress Result

- **Stress Level =**

$$1 + \frac{(-415 + 1280)}{(18925)} = 1.05$$

- **Recent leveling methodology was set to 1.20**
  - **If > 1.20, then focus efforts to drive down the stress**